

In the Claims:

Please cancel claims 1-33. Following is a complete listing of the claims pending in the application, as amended:

1-33. (Canceled)

34. (Original) A microelectronic device, comprising:

a workpiece including a substrate, a plurality of active areas in the substrate, and a dielectric layer over the active areas;

a plurality of bit line contacts in the dielectric layer contacting first portions of the active areas;

a plurality of cell plugs in the dielectric layer contacting second portions of the active areas; and

a bit line structure embedded in an upper portion of the bit line contacts and portions of the dielectric layer between the bit line contacts, the bit line structure comprising an elongated conductive bit line and a dielectric spacer between the conductive bit line and cell plugs adjacent to the bit line.

35. (Original) The device of claim 34, further comprising a liner between the bit line and the dielectric spacer.

36. (Original) The device of claim 34 wherein:

the bit line comprises tungsten; and

the device further comprises a tungsten nitride barrier layer between the tungsten bit line and the spacer.

37. (Original) The device of claim 34 wherein:

the bit line comprises copper; and

the device further comprises a tantalum barrier layer between the copper bit line and the spacer.

38. (Original) The device of claim 34 wherein:
the dielectric layer has a top surface; and
the bit line has a top surface coplanar with the top surface of the dielectric layer.

39. (Original) The device of claim 34 wherein:
the device further comprises a shallow trench isolation structure adjacent to the first portion of the active areas; and
the conductive bit line is superimposed over a portion of the shallow trench isolation structure but not over the first active area.

40. (Original) A microelectronic device, comprising:
a workpiece including a substrate, a plurality of active areas in the substrate, and a dielectric layer over the active areas, the dielectric layer having an upper surface;
a plurality of bit line contacts in the dielectric layer contacting first portions of the active areas;
a plurality of cell plugs in the dielectric layer contacting second portions of the active areas; and
a conductive, elongated bit line embedded in an upper portion of the bit line contacts and portions of the dielectric layer between the bit line contacts, wherein the bit line extends between cell plugs.

41. (Original) The device of claim 40, further comprising:
a dielectric spacer between the bit line and the cell plugs; and
a liner between the bit line and the dielectric spacer.

42. (Original) The device of claim 41 wherein:
the bit line comprises tungsten; and
the liner comprises a tungsten nitride barrier layer.

43. (Original) The device of claim 41 wherein:
the bit line comprises copper; and
the liner comprises a tantalum barrier layer.

44. (Original) The device of claim 40 wherein:
the dielectric layer has a top surface; and
the bit line has a top surface coplanar with the top surface of the dielectric layer.

45. (Original) The device of claim 40 wherein:
the device further comprises a shallow trench isolation structure adjacent to the
first portion of the active areas; and
the conductive bit line is superimposed over a portion of the shallow trench
isolation structure but not over the first active area.

46. (Original) A computer, comprising:
a bus;
a central processing unit coupled to the bus; and
a memory device coupled to the bus, the memory device having a cell
comprising –
a plurality of active areas in the substrate, and a dielectric layer over the
active areas;
a plurality of bit line contacts in the dielectric layer contacting first portions
of the active areas;
a plurality of cell plugs in the dielectric layer contacting second portions of
the active areas; and

a bit line structure embedded in an upper portion of the bit line contacts and portions of the dielectric layer between the bit line contacts, the bit line structure comprising an elongated conductive bit line and a dielectric spacer between the conductive bit line and cell plugs adjacent to the conductive bit line.

47. (Original) The computer of claim 46, further comprising a liner between the bit line and the dielectric spacer.

48. (Original) The computer of claim 46 wherein:
the bit line comprises tungsten; and
the computer further comprises a tungsten nitride barrier layer between the tungsten bit line and the spacer.

49. (Original) The computer of claim 46 wherein:
the bit line comprises copper; and
the computer further comprises a tantalum barrier layer between the copper bit line and the spacer.

50. (Original) The computer of claim 46 wherein:
the dielectric layer has a top surface; and
the bit line has a top surface coplanar with the top surface of the dielectric layer.

51. (Original) The computer of claim 46 wherein:
the computer further comprises a shallow trench isolation structure adjacent to the first portion of the active areas; and
the conductive bit line is superimposed over a portion of the shallow trench isolation structure but not over the first active area.

52. (Original) A computer, comprising:
- a bus;
 - a central processing unit coupled to the bus; and
 - a memory device coupled to the bus, the memory device having a cell comprising –
 - a workpiece including a substrate, a plurality of active areas in the substrate, and a dielectric layer over the active areas, the dielectric layer having an upper surface;
 - a plurality of bit line contacts in the dielectric layer contacting first portions of the active areas;
 - a plurality of cell plugs in the dielectric layer contacting second portions of the active areas;
 - a conductive, elongated bit line embedded in an upper portion of the bit line contacts and portions of the dielectric layer between the bit line contacts, the bit line extending between cell plugs; and
 - a dielectric spacer between the conductive bit line and cell plugs adjacent to the conductive line.